

baseline. *If, however, the source is an established operation, a more realistic assessment of its impact on ambient air quality levels is possible, and thus is directed.*

Id. at 917. (Italics in original.) Compare U.S. v. Murphy Oil USA, Inc., 143 F.Supp.2d 1054, 1104-05 (D. Wis. 2001) (distinguishing WEPCO case because the WEPCO facility “simply replaced old pieces of equipment with new equivalents” whereas defendant in Murphy “increased the capacity of the sulfur recovery unit and made other functional changes to the unit”).

The concept emphasized above from the WEPCO decision – *if ... the source is an established operation, a more realistic assessment of its impact on ambient air quality levels is possible, and thus is directed* – is the concept that underlies the definition of “actual emissions” as established and explained in EPA’s August ’80 PSD regulations. EPA’s interpretive language in the August ’80 regulations describes how to apply the definition of “actual emissions” in the context of state management of increment consumption. As discussed previously, the ’80 regulations implement the ’77 CAA amendments and the Alabama Power decision, and the substantive rules promulgated in those regulations are the source of most of North Dakota’s PSD rules, including the relevant provisions of the definition of “actual emissions.” N.D. Admin. Code § 33-15-15-01(1)(a)(1) &(2). See also pages 43-44, 66-67, 84-88 above.

The August ’80 regulations allow the Department to presume that the permit “allowable” emissions are the “actual” emissions in terms of calculating increment consumption:

EPA believes that, in calculating actual emissions, emissions allowed under federally enforceable source-specific requirements should be presumed to represent actual emission levels.

45 FR at 52718, col. 2-3. This interpretative language of the regulation refers directly to the definition of "actual emissions" that provides that "[t]he department may presume that source-specific allowable emissions for the unit are equivalent to the actual emissions of the unit." N.D. Admin. Code § 33-15-15-01(1)(a)(2). *Compare*, e.g., 45 FR at 52737, col. 3, § 52.21(b)(21)(iii). Thus, it was appropriate for the Department to initially presume, as it did when it began doing PSD modeling in the late '70's and early '80's, that the permit "allowable" emissions are the actual emissions as it did in its earliest permit modeling and in the modeling that calculated initial increment consumption and establishment of the Class I variances in the state. The Department had no actual emissions data at that time to use to calculate the average rate of emissions or to determine whether subsequent emissions were "more representative" of normal source operation.

~~The presumption that the source-specific permit "allowable" emissions are the~~
actual emissions, however, is a rebuttable presumption that "should be rejected" under the regulations "if reliable evidence that the actual emissions differ" from the allowable emissions is available:

The presumption that federally enforceable source specific requirements correctly reflect actual operating conditions should be rejected by EPA or a state, if reliable evidence is available which shows that actual emissions differ from the level established in the SIP or the permit.

45 FR at 52718, col. 3. The legal effect of this language is that the language of N.D. Admin. Code § 33-15-15-01(1)(a)(1) (requiring use of an average *rate* of emissions) supercedes N.D. Admin. Code § 33-15-15-01(1)(a)(2) (allowing the Department to presume permit allowable emissions equal actual emissions) when "reliable evidence is

available which shows that actual emissions differ from the level established in the SIP or the permit.” 45 FR at 52718, col. 3. When “reliable evidence” exists that actual emissions differ from allowable emissions, the Department must base its calculations of increment consumption or expansion using actual emissions under subdivision (a)(1) of §33-15-15-01(1) rather than permit allowable emissions under subdivision (a)(2).

The Department now has reliable evidence – both in the letters submitted to the Department and in data gathered in administering the delegated PSD program under the SIP – showing source-specific actual emissions differ from the levels established in the SIP or the permits. The rule and the '80 regulations therefore require the Department to reject the presumption that the permit “allowable” emissions equal the actual emissions. 45 FR at 52718, col. 3. Instead the Department must make its calculations of increment consumption based on the “reliable evidence” that is available which shows that actual emissions from sources differ from the levels established in the SIP or the permits for each source. This will allow the PSD program to function as intended under the CAA using an “actual emissions” methodology.

EPA explains in detail why the presumption that allowable emissions equal actual emissions must be rejected when reliable evidence is available which shows that actual emissions differ from the level established in the SIP or the permit. *Compare* subdivision (a)(1) of N.D. Admin. Code § 33-15-15-01(1) to subdivision (a)(2).

[I]f increment calculations were based on allowable emissions, EPA believes *increment violations would be inappropriately predicted and proposed source construction would be delayed or halted*. In practice, EPA expects that few, if any, sources will increase their emissions to allowable levels.

EPA believes it is unwise to restrict source growth based only on emissions a source is permitted to emit but which, in many instances, have not been and are not likely to ever be emitted. Increment calculations based on the best prediction of actual emissions links PSD permitting *more closely to actual air quality deterioration than calculations based on allowable "paper" emissions*. In addition, use of actual emissions for increment consumption is consistent with using an *actual emissions baseline* for defining a major modification and for calculating *emission offset baselines*.

45 FR at 52718, col. 1. (Emphasis added.)

When the Department has "reliable evidence", as it now does, that shows that actual emissions from sources differ from the levels established in the SIP or the permits for each source, then the '80 regulations require that the Department reject the presumption that the "allowable" emissions equal the actual emissions. Instead, the Department must base its calculation of increment consumption on the reliable evidence of actual emissions that is now available. If the Department fails to do so, it will do what the '80 regulations warn against in using permit "allowable" emissions for calculating

increment consumption – inappropriate prediction of increment violations.

Further, there is only a very limited possibility, when "allowable" emissions are modeled, of ever freeing up the available increment for existing stationary sources because they are emitting pollutants at an average *rate* that is less than their permit "allowable" levels. EPA noted that in practice it expected "that few, if any, sources will increase their emissions to allowable levels." 45 FR at 52718, col. 3. However, when "allowable" emissions are modeled for increment consumption, increment is consumed in the calculation at the maximum allowable permit level 24 hours per day, 365 days per year, causing "*increment violations*" to be "*inappropriately predicted and proposed* — *source construction*" to be "*delayed or halted*." 45 FR at 52718, col. 1. This is the

situation the Department faces if it does not stop calculating increment consumption using “allowable emissions” rather than using the average *rate* of actual emissions as required by N.D. Admin. Code § 33-15-15-01(1)(a)(1) described at pages 96-98 above.

This methodology must be used for calculating both the “baseline concentration” and the “baseline level” for all relevant time periods – annual, 24-hour, and 3-hour – for an “apples to apples” comparison to be made to determine whether that source is either consuming or expanding increment. The ‘80 regulations describe how this process is supposed to work, including adjustment by the Department of source-specific permits and the SIP (1) to prevent double counting of emission reductions and (2) to make the calculated actual emission levels federally enforceable. 45 FR at 52704-05, 52718-22.

The ‘80 regulations provide that “the most reasonable approach,” consistent with the ‘77 PSD amendments to the CAA, “is to use actual source emissions, to the extent possible, to calculate increment consumption or expansion.” 45 FR at 52718, col. 1. To determine how much increment remains available to a proposed major new source or an existing source making a major modification, the Department and the source owner making the application “must analyze several types of emission changes as of its application date.” Id.

The first of the emission changes that must be examined are emission increases and decreases that have occurred at “baseline concentration” sources, as well as “baseline level” emission rates from increment consuming sources established after the minor source baseline date. Id. “Increment calculations will generally be based on actual emissions as reflected by normal source operation for a period of two years.” Id. at col. 2. “The two-year period of concern should generally be the two years preceding

the date" of the application that triggered the review, "provided that the two-year period is representative of normal source operation." Id.

As discussed in detail previously, the '92 regulations call this two-year period that precedes the application date or other triggering event the "baseline level." 57 FR at 32316-17. See pages 93-98, *supra*. Ordinarily, the Department could compare this "baseline level" for each relevant source to an already established "baseline concentration" for each baseline source to determine increment expansion or consumption. But the Department has not established a "baseline concentration" for baseline sources in the state.

Thus, to determine whether increment violations are occurring for the annual, twenty-four hour, and three hour increments, the Department must accomplish the following steps—(1) establish an SO₂ "baseline concentration" for the annual, twenty-four hour, and three hour increments for all major and minor sources in existence as of the minor source baseline date (baseline sources) as described at pages 64-66 and 94-98 above using the actual rate of emissions methodology, (2) determine the SO₂ "baseline level" for the annual, twenty-four hour, and three hour increments for all operating baseline sources and increment consuming sources to establish using the actual rate of emissions methodology, (3) calculate increment expansion or consumption for the annual, twenty-four hour, and three hour increments for each baseline source by comparing the "baseline concentration" to the "baseline level," (4) consider emissions that have occurred or will occur at sources that have submitted a complete PSD application within 30 days prior to the date the proposed source files its application as well as any emission changes, (5) model all increment consuming

emissions for the annual, twenty-four hour, and three hour increments after considering all relevant baseline levels and adjusting increment expansion or consumption, and (6) adjust source-specific permits and the SIP to prevent double counting of emission reductions and to make the calculated actual emission levels federally enforceable. 45 FR at 52718.

The '80 regulations explain why a two-year period was selected for determining "baseline concentration" and "baseline level":

EPA has selected two years based on its recent experience in reviewing state NSR programs for nonattainment areas. The state submittals use periods of between one and three years to evaluate source emissions. In EPA's judgment, two years represents a reasonable period for assessing actual source operation. Since the framework for nonattainment NSR programs will generally form the basis for a state's PSD plan, EPA believes it is appropriate to use the same time period for evaluating actual source emissions in the PSD program. Two years is also being used to calculate the emissions offset baseline for modifications in nonattainment areas.

45 FR at 52718, col. 2.

The '80 regulations also discuss factors the Department may consider in exercising its discretion to determine whether another period of time is more representative of normal source operation than the two years preceding either the minor source baseline date (when determining baseline concentration) or the date preceding the filing of the application (when determining baseline level):

In general, actual emissions estimates will be derived from source records. Actual emissions may also be determined by source tests or other methods approved by the reviewing authority. Best engineering judgments may be used in the absence of acceptable test data.

45 FR at 52718, col. 2. Thus, generally the Department must look to "source records" to calculate actual emissions as discussed at pages 94-98 above. The "actual

emissions” rule requires that source records be used to calculate actual emissions as follows:

Actual emissions *must* be calculated using the unit's actual operating hours, production *rates*, and types of materials processed, stored, or combusted during the selected time period.

N.D. Admin. Code § 33-15-15-01(1)(a)(1). In 1980, when this language was promulgated by EPA, it was not possible to track a unit's “actual operating hours, production rates, and types of materials processed, stored, or combusted” on a continuous basis. It now is. The installation continuous emission monitoring systems (CEMS) on the major sources has made this a reality. The CEMS data are “source records” that may be used by the Department to assist in determining “the actual rate of emissions of a contaminant” – in this case, SO₂. N.D. Admin. Code § 33-15-15-01(1)(a). ~~The CEMS track on a continuous basis “the actual rate of emissions” of SO₂~~ – which is the definition of “actual emissions” under North Dakota's PSD rules. Id.

The example at 45 FR at 52704-52705 notes that “[u]nless Source A's permit is revised ... to reflect its actual emissions rate of 300 tpy, Source A could attempt to use the decrease in its actual emissions in the future to offset a future emissions increase of its own.” Id. at 52705, col. 1. The example labels this as the “potential problem of double counting ... emissions decreases.” Id.

The actual emissions policy discussed above allows states to operate their PSD programs under a rebuttable presumption that “the source will operate and emit at the allowed levels.” Id. at 52718, col. 3. “EPA, a state, or source remains free to rebut the presumption by demonstrating that the source-specific requirement [i.e., the permit] is

not representative of actual emissions.” Id. (Language in brackets added for clarification.)

If this occurs, however, EPA would encourage states *to revise the permits or the SIP* to reflect actual source emissions.

Id. (Italics provided.) These regulations were issued in 1980 in response to the Alabama Power decision. Consistent with Train and states’ “primary responsibility” over “air pollution control at its source under CAA § 101, Alabama Power held that “management of the consumption of the allowable increments” and “growth-management decisions were left by Congress for resolution by the states.” 636 F.2d at 361, 364. *See generally* pages 9-21 above. The Department may, as the agency delegated that authority for the state of North Dakota, revise permits or the SIP to reflect actual source emissions under its authority to manage consumption of the allowable increments and make growth-management decisions. Id.

~~The August ’80 regulations discuss potential increment violations caused by growth of actual emissions up to the permit allowable limits:~~

~~If all sources in an area increased actual emissions to levels allowed under the SIP or permits, EPA believes increment violations would occur.~~

45 FR at 52721, col. 3. Implicit in this statement is the recognition that if permit allowable emissions were modeled for all sources, inappropriate violations would be predicted. *See, e.g.,* 45 FR at 52718, col. 1 (“[I]f increment calculations were based on allowable emissions, EPA believes increment violations would be inappropriately predicted and proposed source construction would be delayed or halted.”). The Department should base its determination concerning whether all sources are causing a violation of any of the PSD increments by modeling actual emissions, not permit

allowable emissions. In making this determination, the Department should follow the steps and process for establishing the baseline concentration and increment consumption discussed above.

In summary, the “actual emissions” representative of the “baseline concentration” or the “baseline level” must be expressed as an “actual rate of emissions of a contaminant from an emissions unit,” and “*must equal the average rate, in tons per year, at which the unit actually emitted the contaminant during a two-year period which precedes the particular date and which is representative of normal source operation.”* N.D. Admin. Code § 33-15-15-01(1)(a) & (a)(1). The “actual emissions” definition requires that the “rate” for both the “baseline concentration” and “baseline level” *must* not only “equal the average rate, in tons per year, at which the unit actually emitted the contaminant,” but also “~~must be calculated using the unit’s actual operating hours, production rates, and types of materials processed, stored, or combusted during the~~ selected time period.” N.D. Admin. Code § 33-15-15-01(1)(a)(1). The operative word in the rule is the word “rate.”

The Department must determine the PSD “baseline concentration” for SO₂ for each of the periods of time for which a PSD increment applies. N.D. Admin. Code § 33-15-15-01(2)(b); CAA § 163(b), 42 U.S.C.A. § 7473(b). For SO₂, there are three such periods – annual, twenty-four-hour, and three-hour. *Id.* The annual “baseline concentration” is the “average rate, in tons per year, at which the unit actually emitted the contaminant” over the time period that is representative of normal source operation – either the two years preceding the minor source baseline date or another “different time period” *after* the minor source baseline date that is “more representative” of normal

source operation. N.D. Admin. Code § 33-15-15-01(1)(a)(1). The twenty-four-hour "baseline concentration" is the "actual rate of emissions" of SO₂ emitted at the "*average rate*, in tons per year" over a twenty-four-hour period. The three-hour "baseline concentration" is calculated in the same way – the "actual rate of emissions" of SO₂ emitted at the "*average rate*, in tons per year" over a three-hour period.

This process will require the following steps: (1) establish an SO₂ "baseline concentration" for the annual, twenty-four hour, and three hour increments for all major and minor sources in existence as of the minor source baseline date (baseline sources) as described at pages 64-66 and 94-98 above using the actual rate of emissions methodology; (2) determine the SO₂ "baseline level" for the annual, twenty-four hour, and three hour increments for all operating baseline sources and increment consuming sources to establish using the actual rate of emissions methodology; (3) calculate increment expansion or consumption for the annual, twenty-four hour, and three hour increments for each baseline source by comparing the "baseline concentration" to the "baseline level;" (4) consider emissions that have occurred or will occur at sources that have submitted a complete PSD application within 30 days prior to the date the proposed source files its application as well as any emission changes; (5) model all increment consuming emissions for the annual, twenty-four hour, and three hour increments after considering all relevant baseline levels and adjusting increment expansion or consumption; and (6) adjust source-specific permits and the SIP to prevent double counting of emission reductions and to make the calculated actual emission levels federally enforceable. 45 FR at 52718.

3. Consideration of Possible Alternative Ways of Calculating Twenty-four-hour and Three-hour Increment Consumption

The previous section discussed the manner of calculating increment consumption for the annual, twenty-four hour, and three-hour increments under the '80 regulations. North Dakota's PSD rules are derived from the '80 regulations. *Compare* N.D. Admin. Code ch. 33-15-15 and 45 FR at 52729-52748. This section will discuss the history of the adoption of this rule and possible alternative ways of calculating twenty-four and three-hour increment consumption.

Generally in interpreting a rule or statutory provision, the legislative intent must be sought first from the language of the provision itself. Lund, 389 N.W.2d at 586-87. In construing a rule or statutory provision, it is necessary to consider the entire enactment of which it is a part and, to the extent possible, interpret the provision consistent with the intent and purpose of the entire Act, and in furtherance of its policy goals and objectives. Id.; Glaser, 361 N.W.2d at 235.

The definition of "actual emissions" states that the term "means the *actual rate* of emissions of a contaminant from an emissions unit." N.D. Admin. Code § 33-15-15-01(1)(a). "Actual rate" is then defined as "the average rate, in tons per year, at which the unit actually emitted the contaminant during a two-year period which precedes the particular date and which is representative of normal source operation." N.D. Admin. Code § 33-15-15-01(1)(a)(1). See pages 87-110 above. When a term such as "actual emissions" is defined by the statute or rule, it must be construed according to that meaning. N.D.C.C. § 1-02-03.

The word "rate" is not specifically defined in the statute or rule. Unless a word in a statute or rule is defined, it must be given its plain, ordinary, and commonly understood meaning. N.D.C.C. §§ 1-02-02 and 1-02-03; Kim-Go, H.K. Minerals, Inc. v. J.P. Furlong Enters., Inc., 460 N.W.2d 694, 696 (N.D. 1990); Gofor Oil, 427 N.W.2d at 108 (rules of statutory construction applied to administrative rules). The plain, ordinary, and commonly understood meaning of the word "rate" is: "A proportional or relative value; the proportion by which quantity or value is adjusted." Black's Law Dictionary 1268 (7th ed. 1999).

rate ... n. 1. A quantity measured with respect to another measured quantity: *a rate of speed of 60 miles per hour*. 2. A measure of a part with respect to a whole; proportion: *the birth rate; a tax rate*.

The American Heritage Dictionary 1027 (2d col. ed. 1985).

If one was calculating, for example, the distance covered in 30 minutes at the rate of 60 miles per hour, one would take the proportion of time involved (i.e., 30/60) and multiply it by the rate (60 miles per hour), to determine the distance covered (30 miles). Likewise, if the Department is calculating the "actual rate" of emissions of a pollutant in a three-hour or twenty-four hour period at "the average rate, in tons per year, at which the unit actually emitted the contaminant during a two-year period," the Department must first determine the average rate in tons per year for that unit. Then the Department must take the proportion of the time involved (1/365 days or 1/8760 hours in a year) and multiply it by the "actual rate" (defined by the rule as "the average rate, in tons per year") to determine the emissions for the three-hour or twenty-four hour period. Thus, for example, the twenty-four-hour "baseline concentration" for SO₂ is the "actual rate" of emissions of SO₂, which is defined as the "average rate, in tons per

year.” To determine this “*average rate*, in tons per year” emitted over a twenty-four-hour period, the average rate “in tons per year” is divided by the number of days in a year to determine the actual rate in tons per day. See pages 98-99 above.

This interpretation is confirmed by reviewing the history of the rule. N.D.C.C. § 1-02-39. The term “actual emissions” does not appear in the definition of “baseline concentration” until after Congress passed the '77 amendments to the CAA. Compare definition of “baseline concentration” in the '78, '79 and '80 regulations promulgated at 43 FR 26404, 44 FR 51948-49, and 45 FR 52737 with the definition of “baseline concentration” in earlier regulations at 42 FR 57484 ('77 regulation), 39 FR 42514-15 (Dec. 5, '74 regulation), and 39 FR 31007 (Aug. 27, '74 regulation). The term “actual emissions” is not defined until the '80 regulations were promulgated. Compare 45 FR 52737 ('80 reg.) with 43 FR 26404 ('78 reg.) and 44 FR 51948-49 ('79 reg.). It defines “actual emissions” as “the *actual rate* of emissions” and defines “actual rate” as “the *average rate*, in tons per year.” 45 FR 52737 ('80 reg.). These definitions of “baseline concentration” and “actual emissions” apply to the annual, twenty-four hour and three-hour increments; nothing in the rule that limits their application to the annual standard. 45 FR 52737 ('80 reg.); N.D. Admin. Code § 33-15-15-01(1)(a)(1) & 33-15-15-01(1)(d).

There are several alternative ways of calculating annual, twenty-four hour, and three-hour increment consumption that must be rejected because they are either inconsistent with the '80 regulations and N.D. Admin. Code ch. 33-15-15, or they are not adopted as rules.

First are the air quality model guidelines. N.D. Admin. Code § 33-15-15-01(4)(f)(1) incorporates by reference the “Guidelines on Air Quality Models” published

as Appendix W of 40 CFR Part 51. North Dakota's PSD Rules were last revised in March of 1994, thus the relevant Appendix W guidelines for North Dakota are the Appendix W guidelines last promulgated before March of 1994, i.e., the February 1993 Appendix W guidelines. See N.D.C.C. §§ 23-01-04.1(1) & 28-32-05. Those guidelines contain tables for model emission input data for certain types of calculations. Table 9-1 at page 9-5 of Appendix W has a formula that applies to modeling compliance with the "Ambient Standards" or NAAQS, not PSD. Footnote 1 on page 9-5 states "other model input criteria may apply" to NSR and PSD, and refers "to the policy and guidance for these programs to establish the input data." Further, table 9-1 uses the emission limit, rather than actual emissions, in its calculation, so it is inconsistent with N.D. Admin. Code ch. 33-15-15 and the actual emissions method of calculating increment consumption and expansion in the '80 PSD regulations discussed in detail in the previous section. See, e.g., example at 45 FR at 52718, col. 1. To the extent the Appendix W guideline is inconsistent with N.D. Admin. Code ch. 33-15-15, the rule prevails. Table 9-2 and page 9-6 of Appendix W has the same problems as table 9-1. The formulas in table 9-2 again use an "emission limit" rather than "actual emissions," so it is inconsistent with N.D. Admin. Code ch. 33-15-15 and the actual emissions method of calculating increment consumption and expansion in the '80 PSD regulations discussed in detail in the previous section. The formula on page 9-6 appears to apply only to new or modified sources, not to determining PSD compliance of existing sources. Page 9-1 of Appendix W refers to a "checklist of input data requirements for modeling analyses" in "Appendix C" to Appendix W. This checklist includes "actual and allowable annual emission rates" and "operating rates" but no formulas or explanations

of how to calculate twenty-four hour or three-hour increment consumption. See page C-4 of Appendix W. Thus, Appendix W has no relevant formulas, and no method, for calculating twenty-four hour or three-hour increment consumption under N.D. Admin. Code ch. 33-15-15. Rather, footnote 1 to Table 9-1 on page 9-5 states "other model input criteria may apply" to NSR and PSD, and refers to unspecified policy and guidance to establish the input data.

EPA's *Draft New Source Review Workshop Manual* (October 1990) does have a definition for calculating twenty-four hour or three-hour increment consumption. This definition would calculate three-hour and twenty-four-hour increment consumption based on the "current maximum actual emission rate." *Id.* at page C.49 (emphasis in original). "Current maximum actual emission rate" is defined as "the highest occurrence for that averaging period during the previous 2 years of operation." *Id.* This definition is inconsistent with N.D. Admin. Code ch. 33-15-15 and the actual emissions method of calculating increment consumption and expansion in the '80 PSD regulations discussed in detail in the previous section. Further, the *Draft New Source Review Workshop Manual* has never been promulgated as a rule or published in the federal register. As such, the Department may apply Christensen-Mead deference, and may follow it only to the extent it is persuasive. See pages 45-59 above. EPA itself recognizes that this manual is not binding, but only entitled to be given weight. Sur Contra La Contaminacion v. E.P.A., 202 F.3d 443, 446 FN3 (1st Cir. 2000).

A third alternative EPA has proposed is using a "Ninetieth percentile" emissions number over the two-year period ending in 2000 for calculating three-hour and twenty-four-hour increment consumption. EPA's justification for using a 90th percentile

emission rate is that such a rate was used in a previous proceeding in another state. It has neither been published nor even proposed as a rule or regulation. Unpublished and unpromulgated guidance, interpretations, and legal positions taken in various agency documents "are entitled to respect" but only to the extent those interpretations have "the power to persuade." Catskill Mountains, 273 F.3d at 491 ("[A] position adopted in the course of litigation lacks the indicia of expertise, regularity, rigorous consideration, and public scrutiny that justify Chevron deference").

A fourth alternative, proposed by the Department as a compromise position, is to model "hour by hour" emissions as measured by the continuous emissions monitoring systems (CEMS data) from each major source with contemporaneous meteorological conditions using the CALPUFF model. The CALPUFF model is a "state of the art" long range model, but has not yet been promulgated as a "guideline" model under Appendix W. Alabama Power states that Congress expected EPA "to develop and utilize the most accurate and feasible modeling techniques available." 636 F.2d at 387. However, EPA has rejected this approach because it does not model emissions over five years of meteorological data as required by Appendix W.

A fifth alternative is to assume that the permit "allowable" emissions are the actual emissions as the Department has historically done in calculating increment consumption. Under this method of calculating increment consumption, it is assumed that the source is emitting at its permit allowable level twenty-four hours a day, three hundred sixty five days per year. The 1980 regulations implementing the '77 CAA amendments and the Alabama Power decision allow the Department to presume that

the permit “allowable” emissions are the “actual” emissions in terms of calculating increment consumption:

EPA believes that, in calculating actual emissions, emissions allowed under federally enforceable source-specific requirements should be presumed to represent actual emission levels.

45 FR at 52718, col. 2-3. It was appropriate for the Department to initially presume that the permit “allowable” emissions are the actual emissions as it did in its earliest permit modeling and in the modeling that calculated initial increment consumption and establishment of the Class I variances in the state. However, as discussed in the previous section, this presumption is not appropriate when actual emissions data is available. The WEPCO court rejected EPA’s attempt to base the facility’s PSD increment consumption on the worst case assumption of “round-the-clock operations (24 hours per day, 365 days per year) because *WEPCO could potentially operate its facility continuously, despite the fact that WEPCO has never done so in the past.*” 891

F.2d at 916. Rather, the WEPCO court reasoned:

If the source has no actual emissions because it has yet to commence operating, its hypothetical, projected emissions are included in the baseline. *If, however, the source is an established operation, a more realistic assessment of its impact on ambient air quality levels is possible, and thus is directed.*

Id. at 917. (Italics in original.)

The situation described by EPA in its 1980 regulations – that the “*inappropriately predicted*” increment violations will occur if increment calculations are based on allowable emissions rather than reliable evidence of actual emissions – occurred in the 1999 preliminary draft modeling of the Minnkota facility performed by the Department for a permit modification that has since been withdrawn. When the Department has

"reliable evidence", as it now does, that shows that actual emissions from sources differ from the levels established in the SIP or the permits for each source, then the regulations require that the Department reject the presumption that the "allowable" emissions equal the actual emissions. Rather, the calculation of increment consumption must use on the reliable evidence of actual emissions that is available. As discussed in detail in the previous section, the '80 regulations from which North Dakota's PSD rules are derived state that when "allowable" emissions are modeled for increment consumption, increment is consumed in the calculation at the maximum allowable permit level 24 hours per day, 365 days per year, causing "increment violations" to be "inappropriately predicted and proposed source construction" to be "delayed or halted." 45 FR at 52718, col. 1.

~~In sum, the '80 PSD regulations state that using allowable emissions will inappropriately predict PSD increment violations. EPA's unpromulgated policies and guidelines use permit allowable emissions. This is inconsistent with the actual emissions calculations required under the rules and regulations in N.D. Admin. Code ch. 33-15-15 and the actual emissions method of calculating increment consumption and expansion in EPA's '80 PSD regulations discussed in detail in the previous section. The Department may apply Christensen-Mead deference to the alternatives discussed in this section, but must follow its promulgated rules where the guidelines and unpromulgated policies are inconsistent with in N.D. Admin. Code ch. 33-15-15. See pages 45-59 above.~~

4. Whether Modeling Only Increment Consuming and Increment Expanding Emissions Complies with the CAA and N.D. Admin. Code ch. 33-15-15

A statute or rule is ambiguous when it is susceptible to differing, but rational, meanings. Sprynczynatyk, 2001 ND 8, ¶ 10. The interpretation of a statute or rule is a question of law. Id. Statutes or rules must be harmonized to give meaning to related provisions and must be construed consistent with their plain, ordinary, and commonly understood meaning. Id.

CAA § 163(a) & (b), 42 U.S.C.A. § 7473(a) & (b) are susceptible to differing, but rational, meanings concerning when a violation of the three-hour and twenty-four SO₂ Class I increment occurs. The first rational meaning is the original interpretation by EPA that a violation of the three-hour and twenty-four SO₂ increment occurs only when the second highest concentration for the baseline year is exceeded by the maximum allowable incremental increase over the baseline concentration for that short term period. See 39 FR at 31007, § 52.21(b)(1) & § 52.21(c)(2)(i); 39 FR at 42514-15, § 52.01(b)(1) & § 52.01(c)(2)(i); 42 FR at 57484, § 52.21(b)(14) & § 52.21(c)(2)(i).

The second rational meaning is to "place primary emphasis on tracking emission changes rather than on establishing a baseline concentration." 43 FR at 26400, col. 1.

The regulations that made this change (the '78 regulations enacted after the '77 CAA amendments that were challenged in Alabama Power) stated:

The November 3, 1977, proposal also contained guidance for establishing a baseline concentration through existing air quality data. That proposal also suggested an alternative means to construct baseline concentration using air quality dispersion modeling when appropriate air quality data did not exist. The regulations promulgated today no longer suggest that the baseline concentration be formally established. The Administrator feels that increment consumption can best be tracked by tallying changes in the emission levels of sources contributing to the baseline concentration and increases in emissions due to new sources.

Data to establish baseline air quality in an absolute sense would be needed only if increment consumption were to be tracked using ambient measurements. Thus, to implement the air quality increment approach set forth in the Act, the reviewing authority needs to verify that all changes from baseline emission rates (decreases or increases as appropriate) in conjunction with the increased emissions associated with approved new source construction will not violate an applicable increment or NAAQS.

43 FR at 26400, col. 2.

Under this second approach, whether or not the twenty-four hour or three-hour air quality at the location or receptor is better than or worse than at the baseline becomes irrelevant. A violation occurs anytime the cumulative impact of the increment consuming sources exceeds the twenty-four hour or three-hour increment whether or not those impacts are added to or "stacked on top" a high or low impact from baseline sources at the same time. In other words, the worst and second worst twenty-four hour or three-hour baseline conditions – and whether or not worst case twenty-four hour or three-hour conditions are becoming better or worse – is never considered under this approach. Nor is whether baseline and cumulative air quality is actually improving ever considered. A twenty-four hour or three-hour increment violation occurs under this alternative whenever the cumulative impact from increment consuming sources exceeds the short term maximum increments – even if there is no low or no impact at the same time from baseline sources, and even if the air quality impacts from SO₂ are significantly improved over the worst and second worst twenty-four hour or three-hour conditions occurring in the baseline period. This is especially true in a state like North Dakota, where the total baseline SO₂ emissions far-exceed the increment consuming SO₂ emissions, and the major sources are spaced significant distances both from each